



REGION 1
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BOSTON, MASSACHUSETTS 02114-2023

WESTON Ref. No.

01-0372

SDms 159315

March 20, 2001

Mr. Andrew T. Silfer
Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue
Pittsfield, MA 01201

Re: Final Conditional Approval of General Electric's September 2000 revision of the Baseline Monitoring Proposal for Plant Site 1 Groundwater Management Area, General Electric (GE) Housatonic River Project Site, Pittsfield, Massachusetts.

Dear Mr. Silfer:

This letter contains the Environmental Protection Agency's (EPA) conditional approval of the above-referenced Baseline Monitoring Proposal for Plant Site 1 Groundwater Management Area (GMA). The EPA received this document on September 29, 2000. The revised GE proposal was compared against EPA's June 2000 comment letter concerning the earlier version (April 2000) of the GMA-1 Baseline Monitoring Proposal.

GE's revised GMA-1 Baseline Monitoring Program Proposal is a significant improvement over the initial proposal. Overall, GE responded with reasonable revisions to all the EPA comments that had not been resolved previously during meetings between GE, EPA, and Massachusetts Department of Environmental Protection (MADEP). This Baseline Monitoring Proposal for Plant Site 1 Groundwater Management Area is subject to the terms and conditions specified in the Consent Decree (CD) that was entered in U.S. District Court on October 27, 2000.

Pursuant to Paragraph 73 of the CD, the EPA, after consultation with MADEP, approves the above referenced submittal subject to the following conditions:

1. The final list of GMA-1 baseline monitoring wells should include any additional wells needed to monitor conditions along the riverbanks related at future NAPL discoveries, which may occur during the continued Removal Action in the upper 1/2-Mile Reach. To the extent that additional NAPL is discovered in the future, GE shall evaluate the need for such additional wells and, and submit its evaluation, and if appropriate, a proposal for installation of such wells to EPA for review and approval.

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2. GE shall consolidate all its NAPL monitoring/recovery reports for the areas included within GMA-1, as well as the upper ½ Mile Reach of the river, into one comprehensive NAPL report for GMA -1, to be issued semiannually. GE shall also assess existing NAPL recovery programs and propose improvements to optimize the NAPL recovery systems as part of the semiannual NAPL Reports.

3. GE shall monitor well PROP-24 (HR-G1-MW3) associated with the Cell G1 containment barrier as GW-3 perimeter location in GMA-1. In addition to the GW-3 monitoring, GE shall add all three of the wells associated with the Cell G1 containment barrier (PROP-24, -25, and -26) to the GMA-1 NAPL monitoring program. EPA approves the change from weekly to monthly NAPL monitoring at the three wells, as proposed by GE in their March 9, 2001 letter to EPA.

4. Since GE has not proposed groundwater extraction/hydraulic controls at Cells G1, G2 and G3, additional groundwater level monitoring shall be required to evaluate potential groundwater mounding behind the sheetpile containment barriers and changes in the area groundwater flow patterns. GE shall monitor, at a minimum, three wells for each new sheetpile containment barrier: one at each end and one in the middle. GE shall conduct such groundwater level monitoring at the wells associated with Cell G 1 on the same monthly schedule approved for NAPL monitoring at these wells. For the wells associated with Cells G2 and G3, GE will propose a schedule for the groundwater level monitoring on a case-by-case basis for review and approval by EPA.

5. GE has agreed to investigate the potential for NAPL near former Oxbow F. GE has proposed one soil boring (PROP -21) sampled down to till to be converted into a 4-inch diameter monitoring well for NAPL monitoring. Instead, EPA requires that GE install a total of three borings in the area down to till, at locations marked on Figure 2 as EPA-1, EPA-2, and EPA-3, and collect samples from several depths in each of these borings for PCB analysis. Once the NAPL observations and analytical data from these borings are available, if NAPL is detected in any of these borings, GE shall instead install one monitoring well (as proposed) at or near the boring with the most significant NAPL. If no NAPL is detected in any of the three borings, no additional monitoring well will be required.

6. Chlorinated solvents were detected in Well 64 in groundwater sampling conducted in 1991. GE shall review and evaluate the groundwater monitoring results from the wells to be monitored in this area, as well as the results from the soil borings to be installed in this area as part of the East Street Area 2-South soil investigations, to determine whether it can identify potential sources of the chlorinated solvents. Based on the results of these evaluations, EPA may require additional monitoring wells in this area for purposes of addressing such chlorinated solvents.

7. GE added some information concerning the abandoned bedrock well near former Building 32-C and stated that it would perform additional assessment activities related to this well. GE is required to properly abandon this bedrock well. GE shall either document that the well was properly abandoned or properly abandon the well in accordance with MCP guidelines or an alternative method approved by EPA. This is required to eliminate the potential for the well to provide a conduit for near surface contamination to migrate down to the bedrock aquifer. Specifically, GE shall define the scope and content of the additional assessments referred to in the September 2000 document, including, if appropriate, submission, for EPA review and approval, of a proposed method to abandon the well.

8. GE has decided not to propose passive diffusion sampling at this time. If GE does decide to propose the technique at a later date, it shall submit, for EPA's review and approval, a detailed protocol and evaluate how data collected using this new method compares with other groundwater sampling method results.

9. GE agreed to coordinate the installation of new wells with the Massachusetts Highway Department and install them as soon as possible. GE shall provide EPA and MADEP a schedule 30 days prior to well installation.

10. GE has provided the details concerning occupied buildings and buildings scheduled for demolition on two separate maps, as requested. GE shall notify and update EPA if it changes its building demolition or building occupation plans. GW-2 monitoring requirements may need to be modified accordingly.

11. Sections 2.4 and 2.5 of the revised GMA-1 Baseline Monitoring Program Proposal discuss most of the principal NAPL sources, however other known NAPL areas within GMA-1 are not identified (e.g. the Building 42 elevator shaft LNAPL) and details concerning the principal NAPL sources were sparse. These additional NAPL areas along with the principal NAPL source areas shall be discussed in detail in the semi-annual NAPL reports for GMA-1.

12. On January 11, 2001 GE submitted to MADEP, with copy to EPA, the "Supplemental Phase II Scope of Work for East Street Area 1-South", as required by the State AOC. That SOW proposes certain activities to investigate the potential for preferential migration of NAPL or contaminated groundwater along these stormwater and sanitary sewer lines. It further provides that if these investigations indicate the need for an additional groundwater monitoring wells in this area, GE will propose installation of such wells as a modification or addition to the groundwater monitoring program for GMA 1. In addition to the requirements in the State AOC SOW, EPA is requiring GE as part of the Consent Decree GMA-1 approval to assess the potential for NAPL or contaminated groundwater movement along the Newell Street storm/sanitary sewer lines by including MW-37 (after rehabilitating the well) to the GMA-1 Baseline Monitoring Program as a GW-2 compliance well and a potential NAPL monitoring well. If well MW-37 can not be located or rehabilitated, GE shall install a new monitoring well in the area of well MW-37 after obtaining EPA's approval regarding the location.

13. GE shall install the new wells required in the approved GMA-1 Baseline Monitoring Proposal in accordance with the schedule proposed in Section 5.2 of the September 2000 proposal. GE shall notify EPA of its planned dates for installation of these wells not less than 7 days in advance of such well installation activities. GE shall provide EPA with an estimate of its general timetable for these well installations for project planning and oversight purposes within 30 days of this conditional approval letter.

EPA reserves its right to perform additional sampling in the area subject to the GMA-1 Proposal and/or require additional sampling or Response Actions, if necessary, to meet the requirements of the Consent Decree.

If you have any questions, please contact me at (617) 918-1268.

Sincerely,


Michael Nalipinski
GE Facility Leader

attachments

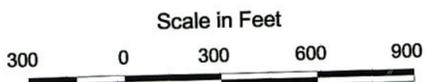
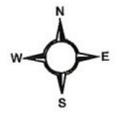
cc:	Tim Conway,	EPA
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	J.Lyn Cutler,	MADEP
	Susan Keydel,	MADEP
	John Novotny,	GE
	Dawn Veilleux,	WESTON
	Chris Moran,	WESTON
	Site Files	

Solid Waste Management Units (SWMUs)

Swmu Id	Name	Description
G-1, G10	Bldg. 60 Former Drum Storage & Tank Truck Area	Spent solvents, phenolic wastes, waste acids, and metal-containing wastes
G-2	Scrap Yard	Scrap metal, empty drums & waste transformer fluids and solvents
G-7a	Coal Gasification Plant Storage Tank Area	Coal tar liquids (PAHs)
G-7b	Coal Gasification Plant Storage Tank Area	Coal tar liquids (PAHs)
G-7c	Coal Gasification Plant Storage Tank Area	Coal tar liquids (PAHs)
G-7d	Coal Gasification Plant Storage Tank Area	Coal tar liquids (PAHs)
T-19	Bldg. 12T Oil Drainage Tank	Waste oil containing PCBs and other hazardous constituents
T-23	Bldg. 12X Emergency Overflow Tanks	PCB-contaminated waste oil
T-26	Bldg. 14 Extension Drain Tank	Phosphoric acid waste containing copper
T-42	Bldg. 68 Drainage Pits	Pyranol - PCB transformer oil (PCBs & Trichlorobenzene)
T-5	Bldg. 3C Yard Former Oil/Water Separator	Stormwater: Pyranol - PCB transformer oil (PCBs & Trichlorobenzene)
T-50	Bldg. 12G Pyranol Unloading Station and Storage Area	Pyranol - PCB transformer oil (PCBs & Trichlorobenzene)
T-6	Former 3C Vault Area - Product Tanks	Formerly 10C transformer oil (petroleum base) w/ PCBs and kerosene
T-61	Bldg. 12F Former Oil Storage Tank Farm	Formerly 10C transformer oil (petroleum base) w/ PCBs
T-9	Bldg. 10 Sump Tank	Hazardous constituents including PCBs
T-A1	Transformer Division Inactive Product Tank	Suspected UST; 10C transformer oil (petroleum base)
T-AAKK	Building 12F Tank Farm	Formerly 10C transformer oil (petroleum base)
T-AAA	Bldg. 29A South-Side Tank Farm	Formerly 10C transformer oil (petroleum base)
T-BBB	Transformer Division Inactive Product Tank	Formerly Varzol (petroleum base solvent)
T-CCC	Transformer Division Inactive Product Tank	Formerly oil
T-D	Bldg. 29A South-Side Tank Farm - 10C Oil Unloading Area	Formerly oil
T-DDD	Transformer Division Inactive Product Tank	Formerly oil
T-GGG/KKK	Transformer Division Inactive Product Tank	Formex (phenolic resin in aromatic hydrocarbon/phenol/cresylic acid base)
T-LL	Transformer Division Inactive Product Tank	Monoethanolamine solution
T-LLL/OOO	Transformer Division Inactive Product Tank	Formerly Varzol & Solvatore (petroleum base solvents) & Xylol (xylene)
T-MM	Transformer Division Inactive Product Tank	Formerly Solvesso-100 (petroleum base solvent)
T-NN	Transformer Division Inactive Product Tank	Formerly Solvesso-100 (petroleum base solvent)
T-OT	Transformer Division Inactive Product Tanks	Formerly varnish, caustic, kerosene & 10C transformer oil
T-OOUU	Transformer Division Inactive Product Tanks	Formerly kerosene, alcohol, Solvatore, benzene, machine & cutting oil
T-OOUU	Transformer Division Inactive Product Tanks	Formerly kerosene, alcohol, Solvatore, benzene, machine & cutting oil
T-PP	Transformer Division Inactive Product Tank	Formerly fuel oil
T-QQ	Transformer Division Inactive Product Tank	Formerly fuel oil
T-U	Transformer Division Inactive Product Tank	Formerly 10C transformer oil (petroleum base)
T-V	Transformer Division Inactive Product Tank	Formerly fuel oil
T-VV	Transformer Division Inactive Product Tank	Formerly fuel oil
T-W	Transformer Division Inactive Product Tank	10C transformer oil (petroleum base)
T-WW/XX	Transformer Division Inactive Product Tanks	10C transformer oil (petroleum base) & varnish
T-YY	Bldg. 29A South-Side Tank Farm	Formerly Varnish
T-ZZ	Bldg. 29A South-Side Tank Farm	Formerly 10C transformer oil (petroleum base) & kerosene

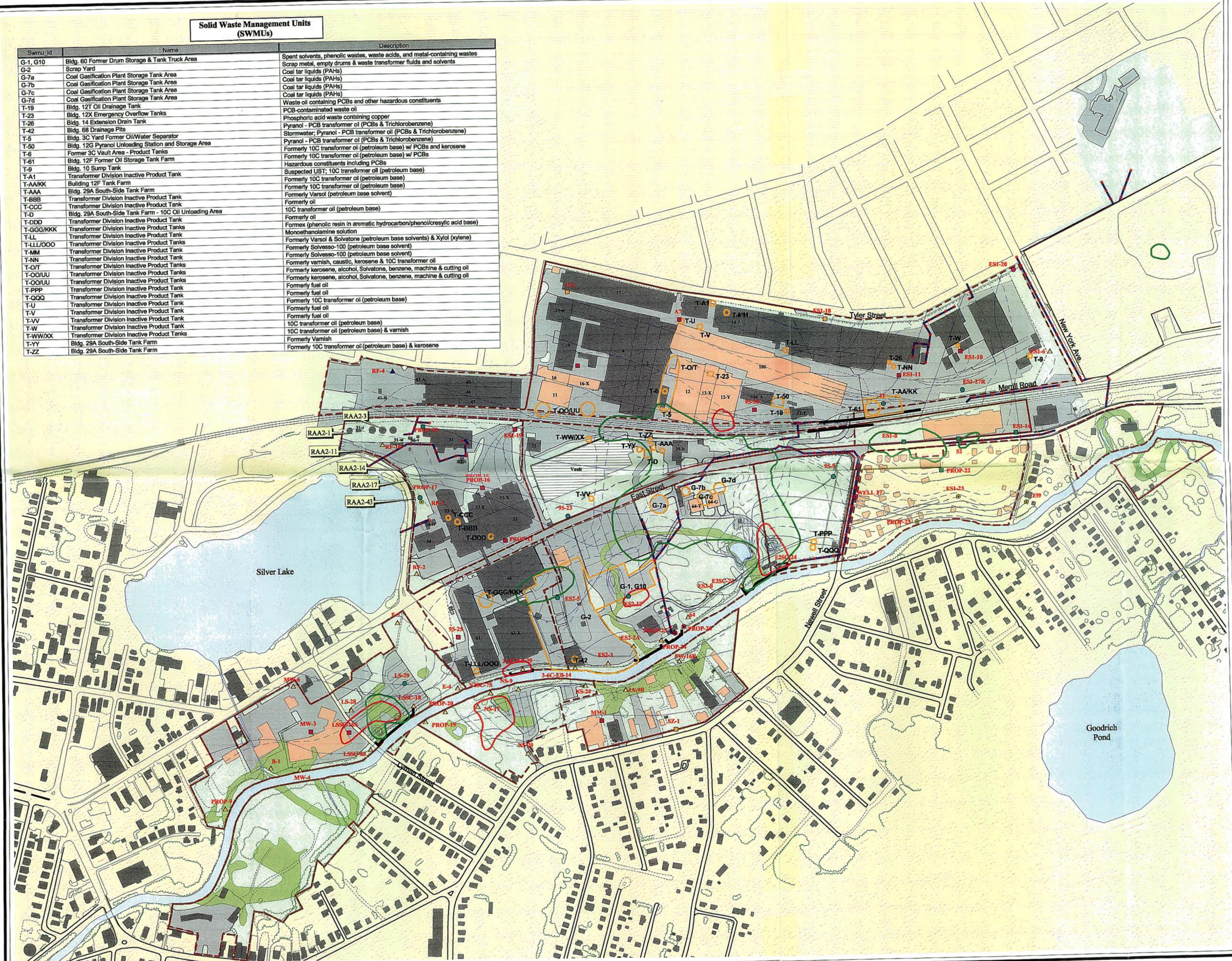
- Legend:**
- Monitoring Wells**
- EPA Proposed GW-2
 - GW-2
 - GW-2 & GW-3
 - GW-2 & Perimeter
 - GW-2 & Source
 - ▲ GW-3
 - ▲ GW-3 & Source
 - Perimeter
 - Source
 - NAPL Monitoring Location

- ~ GE Low Water Contours
- ~ GE High Water Contours
- Roads
- Proposed/ Existing Sheetpile Containment Barrier
- Storm Drainage Sewers -Underwater (GE Preferential Pathway Analysis)
- Solid Waste Management Units (SWMU's)
- LNAPL Plume
- DNAPL Plume
- Occupied Building
- Buildings
- Surface Water
- Former Oxbows



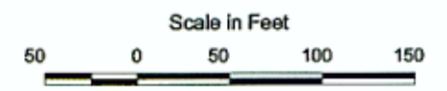
Housatonic River Project
Pittsfield, Massachusetts

FIGURE 1
GMA-1
MONITORING WELL LOCATIONS





- Legend:**
- Monitoring Wells**
 - ▲ GW-3
 - Source
 - ▲ Soil Borings Proposed By EPA
 - GE Low Water Contours
 - GE High Water Contours
 - Roads
 - Proposed/ Existing Sheetpile Containment Barrier
 - Solid Waste Management Unit's (SWMU's)
 - LNAPL Plume
 - DNAPL Plume
 - Buildings
 - Surface Water
 - Former Oxbows



Housatonic River Project
 Pittsfield, Massachusetts

FIGURE 2
Proposed Boring Locations
at Oxbow F Area